

# *MODELLI ORGANIZZATIVI E SISTEMI DI GESTIONE DELLA SICUREZZA NEI LUOGHI DI LAVORO*

## *OHSAS 18001: CRITICITA' NELLE ESPERIENZE DI CANTIERE*

**DOTT. ING. ANTONINO SANTONOCITO**

## Art. 30 - DLgs 81/2008

Il modello di organizzazione e di gestione idoneo ad avere *efficacia esimente* della responsabilità amministrativa delle persone giuridiche, delle società e delle associazioni anche prive di personalità giuridica di cui al decreto legislativo 8 giugno 2001, n. 231, deve essere *adottato ed efficacemente attuato*, assicurando un sistema aziendale per l'adempimento di tutti gli obblighi giuridici relativi .....

## Gli Argomenti .....

- ❖ La Pianificazione in sede e in cantiere
- ❖ Gli strumenti di Monitoraggio
- ❖ La Misurazione delle Performance
- ❖ Cases Study

# La Pianificazione in sede e in cantiere

## Documento di Valutazione dei Rischi (DVR) Job Hazard Analysis

Definizione per tutte le fasi lavorative di:

- ☐ Fattori di Rischio (Hazard)
- ☐ Possibili Cause
- ☐ Misure preventive/protettive di riduzione del Rischio



# La Pianificazione in sede e in cantiere

## *Piano di Sicurezza e Coordinamento (PSC )* *Piano Operativo Sicurezza (POS)*

definizione dei requisiti HSE di progetto per la conformità:

- con la normativa nazionale e locale applicabile
- con gli standards / regole del Cliente /Committente (Stabilimento/Impianto)
- con il Sistema di Gestione della Sicurezza della Società

# La Pianificazione in sede e in cantiere

## *Constructability Review:*

Riesame della progettazione per ottimizzare le attività di costruzione:

- grado di Pre-fabbricazione
- cantierizzazione (lay-out)
- tipologia dei mezzi di sollevamento
- ecc.

# La Pianificazione in sede e in cantiere

## *La Formazione:*

- ✓ **Efficace:** test di valutazione
- ✓ **Evidenza:** stickers su ogni casco
- ✓ **Coinvolgere:** eseguirla in cantiere
- ✓ **Continua:** incontri con capicantiere (preposti) e lavoratori



# La Pianificazione in sede e in cantiere

## *La Formazione:*

## *Tool Box Meeting:*

Condivisione  
dei fattori  
di rischio presenti



02.02.2009

# Gli Strumenti di Monitoraggio

## *Controlli Operativi*

### *Controllo della conformità*

- ✓ Safety Inspection
- ✓ Weekly Walk Around
- ✓ Internal Audit



# Gli Strumenti di Monitoraggio

HAZARD CASE

TRATTAMENTO

Person Making Inspection: **A. Sagoleo** Plant: **KAS**  
 Date: **27/01/2009** Hour: **17:00**  
 Subcontractor: **SITIE**  
 Activity: **Electrical works**  
 Number and Function of Workers Involved: **1**

Scope of Inspection : **Daily safety inspection**

CHECK LIST		U = Unsatisfactory S = Satisfactory I = to be improved		U = Unsatisfactory S = Satisfactory I = to be improved		U = Unsatisfactory S = Satisfactory I = to be improved	
<b>1. PERSONAL PROTECTION DISPOSALS</b>				<b>4. SAFETY RULES AND PROCEDURE</b>			
1.1. Head Protection: helmet	✓	4.1. Observance of the Work Permit	✓	1.2. Eyes Protection: Lens	✓	4.2. Observance of the Project Procedure	✓
1.3. Hand Protection: Glove	✓	4.3. Observance of the Safety Rules in Force in the Refinery/Plant	✓	1.4. Ear Protection	✓	4.4. Overing of subcontractors activities	✓
1.5. Face Protection	✓	4.5. Adequacy of the number of subcontractor supervisor	✓	1.6. Protection of Respiratory Tracts: mask	✓	4.6. Other Absence of subcontractor safety supervisor	✓
1.7. Body Protection: overall	✓			1.8. Foot Protection: Shoes	✓		
1.9. Fall-down Protection: safety belts	✓			1.9.1. Other:			
<b>2. PLACE OF WORK</b>				<b>5. TOOLS / MACHINERIES</b>			
2.1. Adequacy of the place	✓	5.1. Correct use of the Tools/Machineries	✓	2.2. Adequacy to reach a place of work higher than 2.0 meters from the ground	✓	5.2. Tool Condition	✓
2.3. Correct installation of the scaffolding	✓	5.3. Machinery Condition	✓	2.4. Adequacy to go up and/or go down from ladders and/or scaffolding	✓	5.4. Adequacy of the machineries (crane, compressor)	✓
2.5. Possibility to move	✓	5.5. Other:		2.6. Risk work	✓		
2.7. Visibility / Illumination of the place	✓			2.8. Other:			
<b>3. PREVENTION</b>				<b>6. ENVIRONMENT PROTECTION</b>			
3.1. Hazard Identified Clearly	✓	6.1. Prevention to avoid shading	✓	3.2. Hazard communication	✓	6.2. Property Storage of the materials and Correct Waste Disposal	✓
3.3. Safety Tools availability: fire extinguishers, Showers	✓	6.3. Other:		3.4. Other:	✓		

REV.	DATE	DESCRIPTION	WRITTEN	VERIFIED	APPROVED	AUTHORIZED
1	27/01/09	ISSUED FOR INFORMATION	A.SAGOLEO	F. ACABITI	F. ACABITI	

TECHNIP KTI S.p.A. - 00148 ROMA - Viale Castello della Magliana, 75  
 KTI Poland S.A. - Al. Wojska Polskiego 27/26, 01 Warszawa -515

No.	Unsatisfactory / To be Improved	Corrective Action	Action Addressee	Starting Date	Expected Completion Date	Actual Completion Date	Verifying Date	Note
2.7 4.1 4.3	Four workers were operating on the top of the pipe rack during the night time without using any portable light	1) Immediate interruption of the working activity and installation of proper light 2) A dedicated tool box meeting have to be done in order to inform all workers that is strictly necessary to use the portable lights for forking during the night time (in the afternoon after 4 pm)	SITIE C.M. Mr. G. Rossi	27/01/09	27/01/09	26/01/09		

REV.	DATE	DESCRIPTION	WRITTEN	VERIFIED	APPROVED	AUTHORIZED
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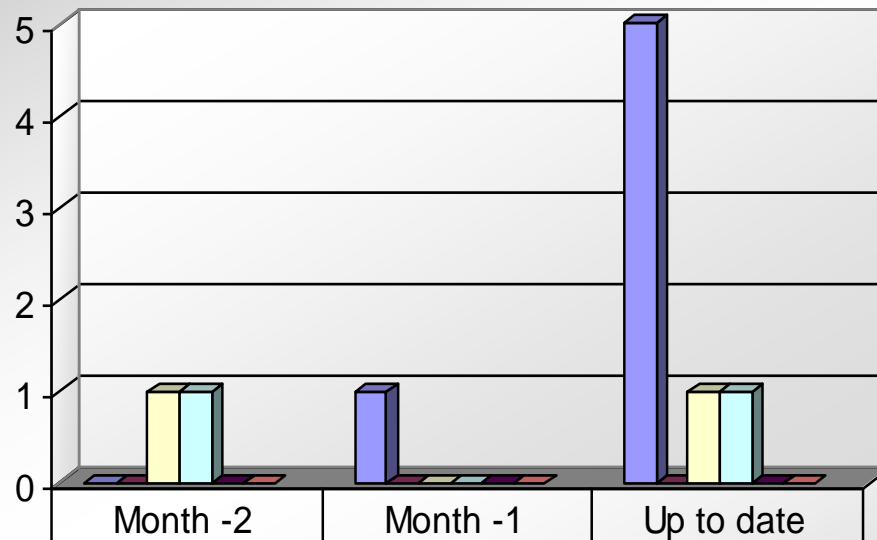
# La Misurazione delle Performance

*Obiettivi: LTIR = 0*  
*RIR = 0*

$$\text{LTIR (Lost Time Injury Rate)} = \frac{\text{No. of cases with lost workdays} \times 100.000}{\text{Exposure time of employees, hours}}$$

$$\text{TRIR (Total Recorded Incident Rate)} = \frac{\text{No. of recorded incidents} \times 100.000}{\text{Exposure time of employees, hours}}$$

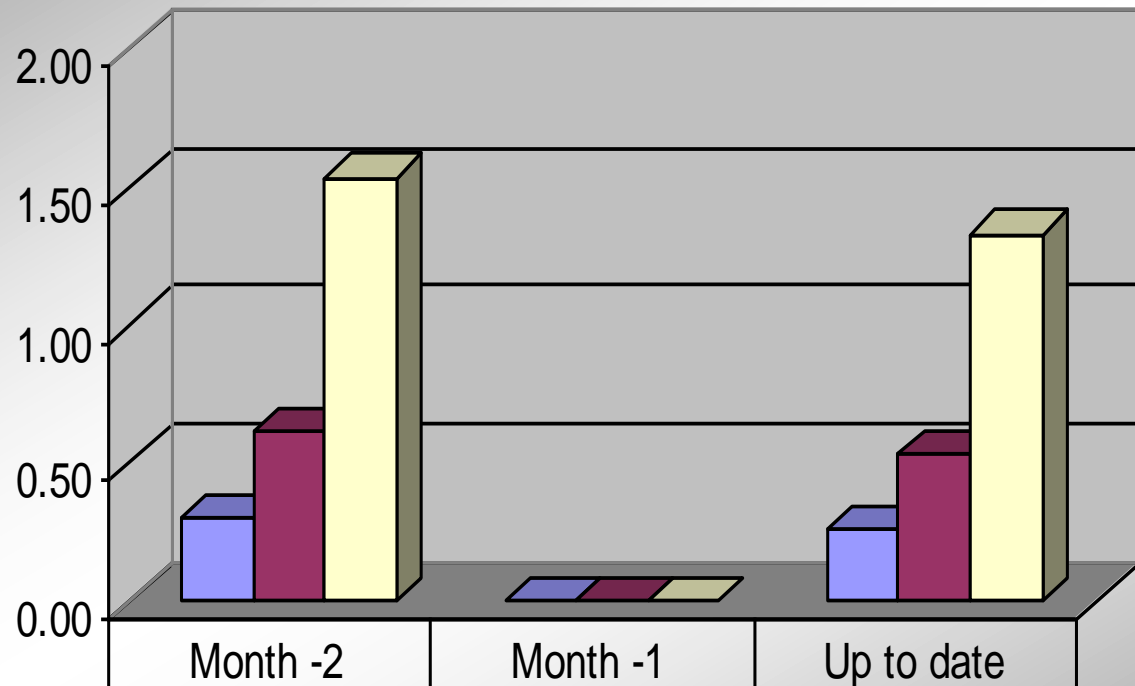
# La Misurazione delle Performance



■ Near Misses	0	1	5
■ First Aid	0	0	0
■ Medical Treatment Case	1	0	1
■ Loss Time Injury Case	1	0	1
■ Environmental Incident	0	0	0
■ Property Damage Incident	0	0	0



# La Misurazione delle Performance



Loss Time Injury Rate	0.31	0.00	0.27
Total Recordable Injury Rate	0.62	0.00	0.53
Loss Work Days Rate	1.54	0.00	1.33

# La Comunicazione

## CHECK THE SIGNS!

WATCH FOR THESE WHMIS HAZARD SYMBOLS



**CLASS A**  
Compressed Gas



**CLASS D-2**  
Poisonous and Infectious Material  
(Materials Causing Other Toxic Effects)



**CLASS B**  
Flammable and Combustible Material



**CLASS D-3**  
Poisonous and Infectious Material  
(Biohazardous Infectious Materials)



**CLASS C**  
Oxidizing Material



**CLASS E**  
Corrosive Material



**CLASS D-1**  
Poisonous and Infectious Material  
(Material Causing Immediate and Serious Effects)



**CLASS F**  
Dangerously Reactive Material

WHMIS provides information on the safe use of hazardous materials at Canadian workplaces.

**Alberta**  
HUMAN RESOURCES  
AND EMPLOYMENT  
Workplace Health  
and Safety

For more information, visit our web site  
[www.gov.ab.ca/hre](http://www.gov.ab.ca/hre)

Understand your rights as an employee.



Develop stress-busting techniques.



Get safety and first aid training.



Ask questions, at home and at work.

## AFTER HOURS ATTITUDES

Lifestyle Choices Contribute to Safety

Here are some strategies you can adopt to make your workplace safer:



Use proper gear and techniques.

Talk to your doctor.



Be aware children are watching you.



Take care of yourself.

Get help if you have a drug or alcohol problem.

**CHOOSE SAFE NOT SORRY.**

Questions about Workplace Safety?

Visit [www.worksafely.org](http://www.worksafely.org) or call us (toll-free) at 1-866-415-8690.

**WORK SAFE**  
ALBERTA

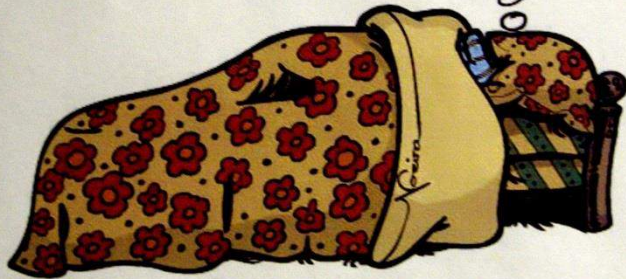
**Alberta**  
HUMAN RESOURCES  
AND EMPLOYMENT



# La Comunicazione

PPATT13

I should have said  
something  
I should have said  
something.....



Can you sleep at night knowing  
that your buddy was hurt  
because you didn't report that  
Near Miss ???

© MCMXCVIII Bongarde Communications Ltd. 1-800-867-9300



ahhh.....  
Do you think maybe we  
shoulda Reported that  
Near Miss ?????

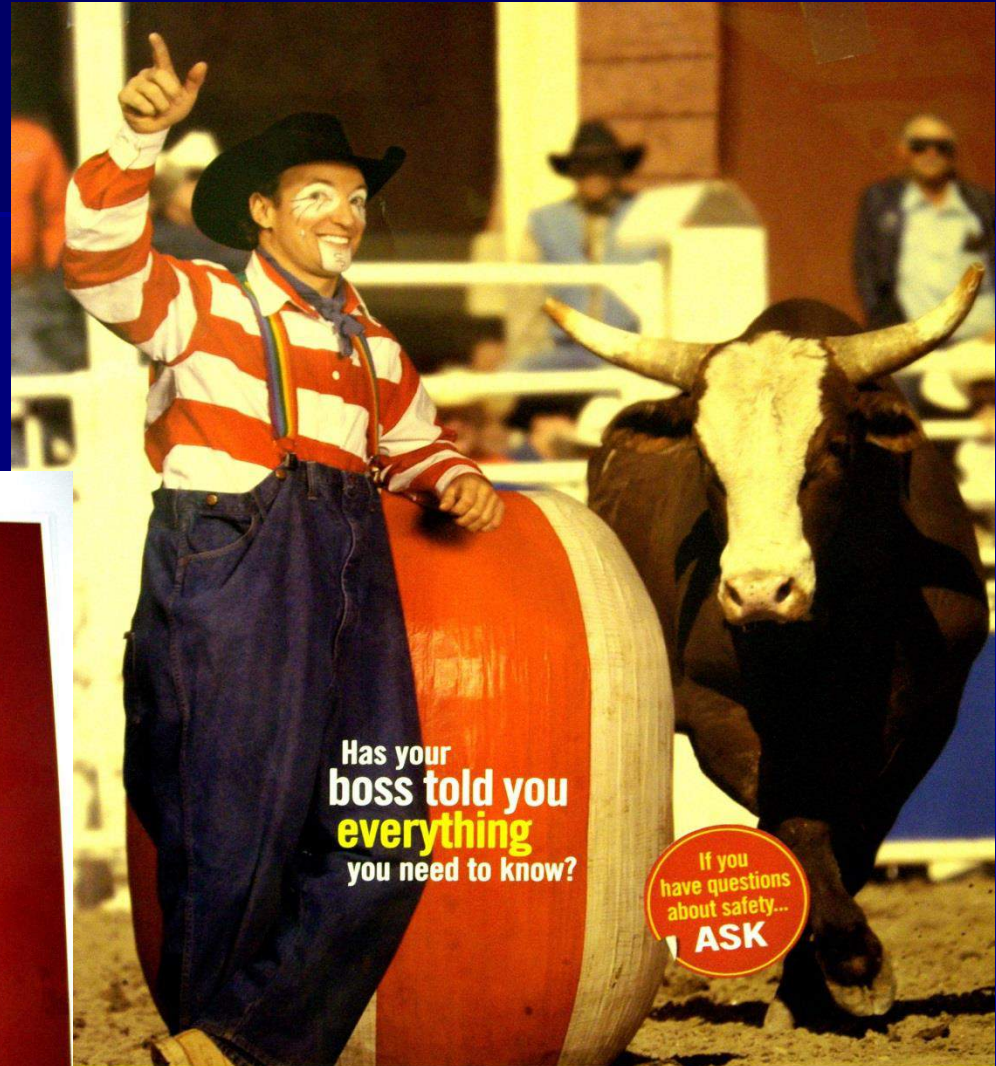
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ABATT1121



# La Comunicazione

*Think SAFETY*  
*Work SAFELY*



Has your  
boss told you  
**everything**  
you need to know?

If you  
have questions  
about safety...  
**ASK**

Last year, nearly 52,000 new workers got hurt on the job in Alberta. Thirty died of work related injuries. Eagerness to succeed, combined with a lack of training, can be a deadly combination. If you're a new worker find out about workplace health and safety before it's too late.

**HEADS UP**  
work smart. work safe.

Workers' Compensation Board • Alberta • Alberta Construction Safety Association • Alberta Human Resources and Employment • Manufacturers' Health and Safety Association • Alberta Hotel Safety Association



# La Comunicazione





# La Comunicazione













# La Verifica delle Attrezzature





# La Verifica delle Attrezzature









I DPI





# I DPI





# I DPI





I DPI





# Le scale





# Le scale





# Le scale





# Le scale





# Le scale

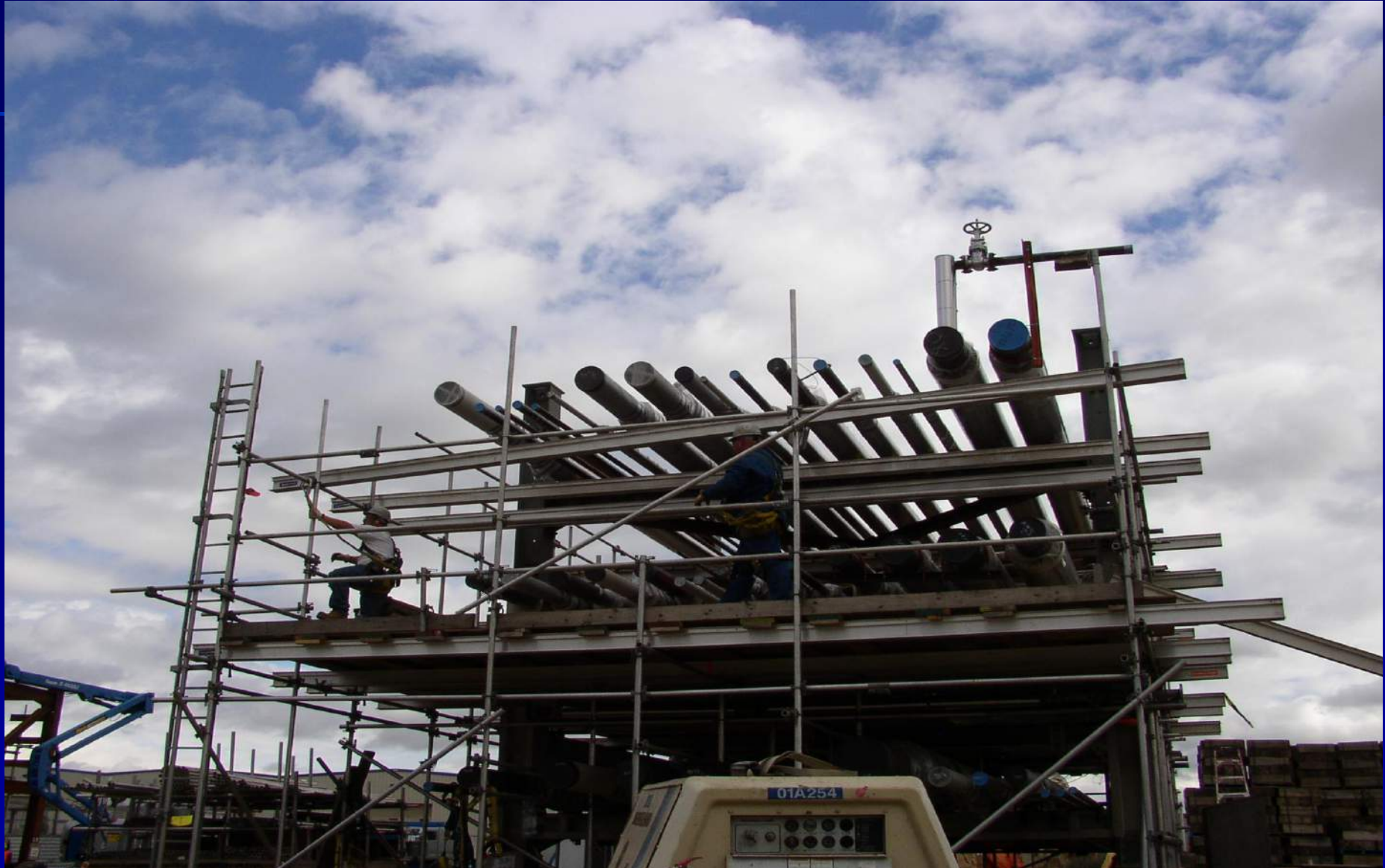


# I Ponteggi

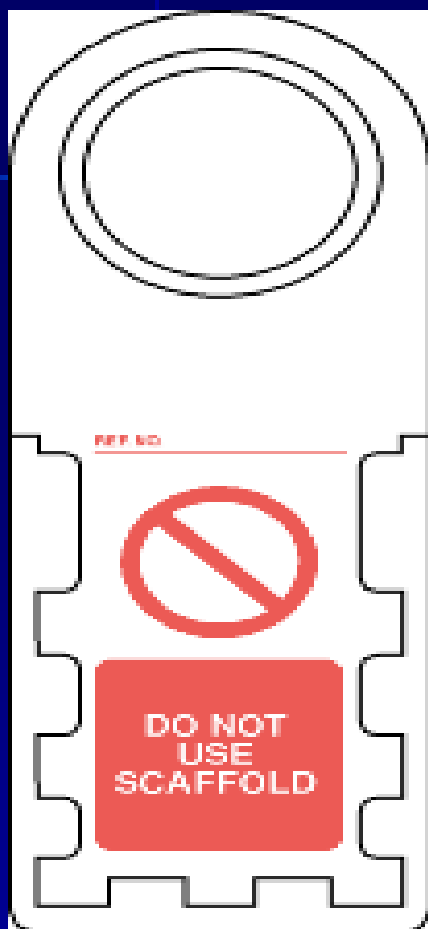




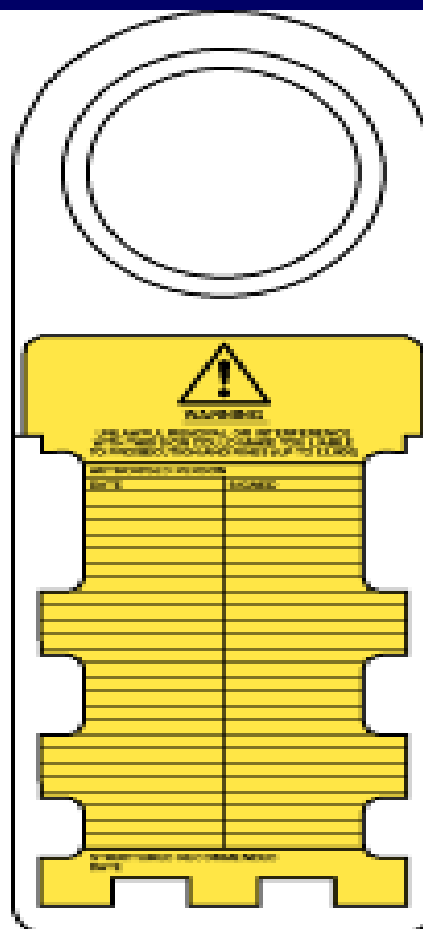
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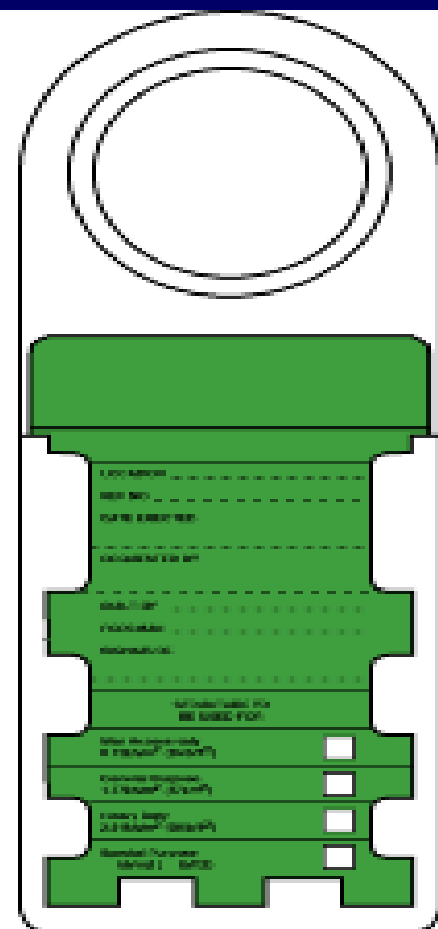
# I Ponteggi



**Scaffold  
Unsafe  
Empty Card  
Holder**



**Scaffold  
Inspection  
Back of Card  
Signed and Dated**



**Scaffold  
complete and  
in use. Front of  
Card Showing**



# I Ponteggi











## I Ponteggi



# I Ponteggi





# I Ponteggi





# I Ponteggi





# Ponteggi ???





Ponteggi ???



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GRAZIE